

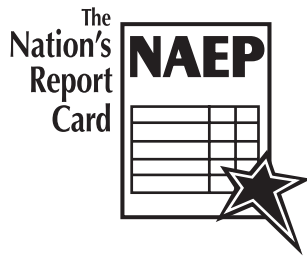
**NATIONAL ASSESSMENT OF
EDUCATIONAL PROGRESS (NAEP)**

DEMONSTRATION BOOKLET

**2005
READING, MATHEMATICS,
AND SCIENCE**

GRADE 12





2005
Grade 12

SECTION

1	S13
2	S14
3	D1
4	SB1
5	S6

BOOK
S205G

School and Teacher Information

SCHOOL #

--	--	--	--	--	--	--

TEACHER #

--	--

TOTAL TIME for
ACCOMMODATION

--	--	--

ADMIN
CODE

--	--

ACCOMMODATIONS

- none (N)
- 71 (Y)
- 72 (Y)
- 73 (Y)
- 74 (Y)
- 75 (Y)
- 76 (Y)
- 77 (Y)
- 78 (Y)
- 79 (Y)
- 80 (Y)
- 81 (Y)
- 82 (Y)

PLACE LABEL HERE

DO NOT USE

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
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9	9	9

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS 2005 DEMONSTRATION BOOKLET

TABLE OF CONTENTS

About This Demonstration Booklet	4
The Reading Assessment	5
Description	5
Reading Booklet Directions	6
Sample Reading Questions: Grade 12	8
The Mathematics Assessment	14
Description	14
Mathematics Booklet Directions	15
Sample Mathematics Questions: Grade 12	16
The Science Assessment	18
Description	18
Science Booklet Directions	19
Sample Science Questions: Grade 12	21
Student Background Questionnaire	23
General Directions for Grade 12	23
Student Background Questionnaire	24
Reading Background Questionnaire	27
Mathematics Background Questionnaire	33
Science Background Questionnaire	38
Information About National Assessment of Educational Progress	Back Cover

ABOUT THIS DEMONSTRATION BOOKLET

On behalf of the National Assessment of Educational Progress (NAEP) project team, I want to thank you and other members of your school system for agreeing to participate in the NAEP assessment. Your participation is essential and highly valued. The data that NAEP provides about student achievement are widely used by policymakers, educators, and researchers throughout the nation.

Since 1969, NAEP assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts. In 2005, NAEP will conduct operational tests in reading, mathematics, and science at grades 4, 8, and 12.

The assessment will require about 90–100 minutes of a student's time. Each participating student will receive a reading, mathematics, or science booklet. The booklet will include two 25-minute sections of test questions and a brief background questionnaire that asks students about their experience with reading, mathematics, or science. Students' answers to all questions are confidential and student names are removed from all completed assessment materials.

This demonstration booklet describes the 2005 assessments. The first three sections explain the purposes and content of the NAEP reading, mathematics, and science assessments and provide sample test questions at each grade level. The fourth section includes the directions and the background questions that all students will be asked to answer. The final part of the booklet, located on the back cover, presents general information about the NAEP program.

The sample questions included in this booklet are intended to convey the kinds of questions and question formats that compose the 2005 assessments. All released questions from previous NAEP assessments are available to be viewed and downloaded from the NAEP web site at <http://nces.ed.gov/nationsreportcard>. The actual questions in the assessment must be safeguarded to maintain the integrity of the assessment and resulting data, but members of the public may request access to secure NAEP questions. Information on how to make such a request is included on the back page of this booklet.

If you have any questions or comments regarding the NAEP program or this booklet, please refer to the NAEP web site at <http://nces.ed.gov/nationsreportcard> or call Sherran Osborne of the National Center for Education Statistics at 202–502–7420.

Peggy G. Carr, Associate Commissioner
Education Assessment
National Center for Education Statistics

THE READING ASSESSMENT

The NAEP reading assessment measures students' ability to understand, to interpret, and to think critically about different types of texts. Recognizing that readers vary their approach according to the demands of different types of text, the NAEP framework specifies the assessment of reading in three contexts: *reading for literary experience*, *reading to gain information*, and *reading to perform a task*. The assessment comprises reading materials selected from publications and other resources typically available to students in and out of school.

Across the three contexts for reading, students are asked to demonstrate their understanding by responding to comprehension questions that reflect four different approaches to understanding text. The NAEP framework accounts for these different approaches by specifying four aspects of reading that represent the types of comprehension questions asked of students. *Forming a general understanding* questions ask students to consider the text as a whole. *Developing an interpretation* questions ask students to discern connections and relationships within the text. *Making reader/text connections* questions ask students to connect information from the text with prior knowledge and experience. *Examining content and structure* questions ask students to critically evaluate the content, organization, and form of the text. All four aspects of reading are assessed at all three grades within the contexts for reading described above.

The NAEP reading assessment contains multiple-choice questions, as well as short and extended constructed-response questions. Students spend approximately 50 to 60 percent of their assessment time providing written answers to constructed-response questions.

Distribution of Percentage of Assessment Time Across Contexts for Reading in the NAEP Reading Framework

Literary	Informative	Task
35%	45%	20%

READING BOOKLET DIRECTIONS

In each of the next two sections, you will have 25 minutes to read a story, an article, or a document and answer questions about it. You should think carefully about your answers, and you should use the entire 25 minutes to complete each section.

You will be asked to respond to three different types of questions. Some of the questions will require you to choose the best answer and fill in the oval for that answer in your booklet.

For other questions, you will be asked to write short answers on the blank lines provided in your booklet. Here is an example of a question that requires you to provide a short answer.

Example 1

Give an example from the article that shows Mandy was not a quitter.

One example is that Mandy's mother didn't want her to umpire in public, but Mandy persuaded her mother to let her.

Also, you may be asked to answer other questions by writing longer, more detailed responses on a full page of blank lines. For example, here is a question that requires you to provide a longer answer.

Example 2

Explain how Mandy's mother and brother helped Mandy to become the first women umpire.

Mandy's mother helped her by agreeing to let her umpire at a public ball game. Mandy did so well that the team offered her a job as umpire. Mandy's brother helped her by letting her play baseball with him. He also helped Mandy to persuade their mother to let her play in public.

When you are asked to write your response be sure that your handwriting is clear. Think carefully about each question and make your answers as complete as possible, using as many lines as you need.

You may go back to the story, article, or document when answering any of the questions. If you finish before time is called, be sure to read your work again and change anything that you think will make your answers better.



SAMPLE READING QUESTIONS

GRADE 12

BARGAIN BASEMENT

\$25 and under	\$25 and under	\$25 and under
AIR CONDITIONER — Fedders, large works \$25. 555 1076	COFFEE DECANTERS — Glass \$2 new, have 5. 555 0688	HAIR SALON FURNITURE — Free. 555 8109
ALL KINDS OF GOLF CLUBS — \$20. after 3PM. 555 5507	COUCH — Early American nice \$20. 555 2145	HEPA FILTER — 12 x 12 \$25. Call 555 6127
ANTIQUE WARDROBE — Needs lt. work. 1st \$25. 555 1326	CURTAINS — Sheers 108x84 white \$20, call 555 6376	HIGH CHAIR — \$25. Century windup swing \$5. 555 0559
ASSORTED SZS, WINDOWS & DOORS — \$25. 555 8261	DESERT STORM — Series 2 and 3 \$12 per box. 555 7093	HOSE — For sump pump new 13 ft. \$6. 555-5434
BEACH UMBRELLAS — \$5/each. 555 7092	DESERT STORM — Series 1 cards \$12 per box. 555 7093	HOSTA — 25¢ up, CORAL BELLES. Flowering Cabbage Plants, \$1. 555 2445
BED FRAME — Twin or Full size \$15. 555 0572	DICK CEPEK BLACK LIGHT BAR — \$15 new. 555 8109	INSULATION — 6" × 15' fiber glass \$8. roll. 555-1017 after 6 p.m.
BIKE RACK — \$20, cot \$10. call 555 7640	ELEC. MOWER — \$15 good outdoor chairs \$2. 555 6104	JACK NICKLAUS GOLF CLUBS — \$25. after 3 PM 555-5507
BIKE — Boys \$25 electricians supplies \$5 25. 555 7797	ELECTRIC FENCE ITEMS — Poles battery case etc. \$25. 555 0490	JEAN JACKETS — Med. was \$75 only \$25. 555-0608
BIKE — Girls 16" Schwinn VG Cond. \$25. 555 9724	FARBER ELECTRIC BROILER — \$15. 555 4783	LADIES BETTER DRESSES — size 9 12, \$2. 555 0750
BLACK & WHITE TV — 20" good cond. \$25. 555 2924	FLOOR TILE — Armstrong white 1 box \$4. 555 6962	LADIES BETTER DRESSES — size 9-12, \$2. 555 0750
BLACK LEATHER ROLL CAGE COVERS — \$25. 555 8109	FLOOR JACK — 6 ft. hght \$10. call 555 5034	LADIES BETTER DRESSES — size 9 12, \$2. 555 0750
BMX — Free Style Bike nice \$25. Call 555 2124	FORMICA — 2' × 2' \$.25/each 2' × 4' \$.50 colors. 555 8597	LAMPS — Pictures Mr. Coffee Broiler \$1. up. 555 3575
BOOKS — PAPER BACKS — & hard covers. \$.15 - \$1. 555-0750	FREE FIREWOOD — Call 555-1823	LAMPS — 2 \$15/each 1 crib & mattress \$20. 555 0567
BOWLING BALL — w/leather bag \$25. 555 1138	FREE ORANGE KITTEN — (1). call 555-8392	LAWN MOWER — 22" push rotary \$20. 555-1457
BOYS SUIT JACKETS — One brown 1 blue sz. 12 \$10. 555 0608	FREE RABBIT HUTCH — Free standing 2' × 7'. 555 6711	LEATHER ROLL CAGE COVERS — Brand new \$25. 555-8109
BRASS TONE HEADBOARD — & bedframe \$20. 555 4783	FUEL OIL TANK — Inside, 275 gallon, \$25. 555 9604	LESTOIL SPRAY FLOOR CLEANER — \$12 a case 555 4707
BRICK FLOWER BED EDGING — \$1/ea rug braided. 555 6988	GARAGE DOOR OPENER — For parts \$7. 555 6911	LIGHT FIXTURES — Bath, dining, foyer, kitchen. Total of 8. \$5 \$20 ea. 555 7503
BUSHINGS — Polyurethane shock boot \$1.50. 555 8109	GAS CAN — 5 gallon \$10. call 555 3724	LOCK — Shalage entry brush aluminum \$12. 555 5434
CAKE PLATE — 50th anniv. gold trim Nu \$12. 555 8011	GOLF CART — Like new. \$20. Call after 3PM. 555 5507	LONDON FOG COAT — W/lining egg shell \$15. 555 5434
CAN OPENER — Rival under the counter \$5. 555-4707	GOLF BAG — & Irons 3, 2, 9, \$25. 555 7092	
CEILING FAN — New 52" white \$20. 555 6376	GOLF BALLS — \$2 dz. putters, sand wedge \$10. 555-3575	
CHANGING TABLE — \$10. potty \$3., vaporizer \$3. 555 2005		

\$25 and under	\$25 and under	\$26 to 100
MAPLE BOARDS — 2. a Sq.Ft. 1'2"3". Call 555 1822	STORM DOOR — Screen 80 x 35 3/4. \$25. 555 1138	BIKE — 26 3 speed runs OK 1st \$50. after 3PM 555-7154
MECHANIC'S CREEPER — & Jack stands \$25. 555 6127	STREET HOCKEY NET — \$10 new in box. 555 1660	CAMARO THM350 MALIBU — THM 350 \$75. 555 2135 lv. msg.
MEDICINE CABINET — \$5. Call 555-0572	TABLE — Wrought Iron round 38", \$25. 555 8380	CHAIR — Stratlounge excel. cond., \$75. 555-5434
MINI BLINDS — Shade white 60W \$15. Call 555 8640	TALL END TABLE — lamp & shade \$15. 555 0750	COLOR TV'S — 2. 15" and 17". \$80 and \$90. Call anytime. 555 6373
MOTOR FURNACE — 1/4H.P. A 1 Delco \$20. 555 1138	TENT — 9x9 umbrella exc. cond., \$25 555-2674	DRAFTING TABLE — Lamp & chair \$60. 555 9389
MOWER — Push type 18 Craftsman \$20. Good cond. 555 0958	TIRES — P235/75R15 on GM rims \$20/ea. 555-6296	EXERCISE BIKE — White, lk. new, \$65. Call Michael 555 2503
NEW DOORS — Prhng. &blrd \$25. Also new locks \$3.50 555 0572	TIRES — On rims Ford Ranger pair \$25. 555 3432	FORD C-4 AUTO TRANS — \$75. Call 555 0140
PAINTERS TOOLS — Work bag & clothes. \$1 \$5/ea. Call 555 7503	TRAILER HITCH — \$20/bo. Call 555 5038	GAS STOVE — 30" glass door, good cond. \$100. 555 0958
PATIO TILE — In/out 6x6 new terra cotta 21c. 555 1544	TRX CYCLE — For child old \$20. 555 5038 good.	GOLF CLUB SET — Irons, woods, bag, \$85. 555 7258
PING PONG TABLE — Official size V. good, \$25. 555 4987	TYPEWRITERS — Elec. manual \$10. &\$5. port. Singer sew. mach. \$15. 555 0219	GRATEFUL DEAD TICKETS — [6] great seats \$65/ea. 555 1377
PLAYPEN — \$10. Please call 555 1915	VACUUM — Canister style, good \$25. 555 7456	HAYWARD EARTH FILTER — 3/4 hp. asking \$100. Call 555-5547
PORT. TV — BW 6" \$15, record player \$10/bo. 555 3575	VACUUM — Hoover Canister \$25. all attach. 555-8428	HEALTH MEMBERSHIP — Hamilton Fitness Club, \$100. Call 10-8 555-7223
ROLLER — 30" x 12" concrete filled, \$25. 555 6040	WARN WINCH FRONT BUMPER — Black \$25. 555-8109	LAWN MOWERS — \$25/up. A-1 cond. Call 555-9232
RUG RUNNER BRAIDED — Mauve 29"w x 11'L \$20. 555 4101	WATER LILLIES — Variety com- anche \$15. 555 2569	LAWNMOWER — Lawnboy, 21" self prop. \$75. 555 5147
SALTON ELECTRIC WARMER SERVING CART — \$25. 555 4283	WINDOW FAN — 18" w/slides \$25. 555 2660	LAWNMOWER — 21" self prop. rear bag \$90. 555-8428
SCHWINN STINGRAY — \$20. ladies 26" \$25. 555 7456	WINDSHIELD — 71' 75' caddy CPE, \$25. 555 6296	MEN 12 SPD BIKE — \$55, brand new. Baby monitor, \$20. Wood high chair, \$25 555 1561
SCREWS — Black type 2" & 2 1/2" 13 lbs. \$25. 555 5434	\$26 to \$100	
SEARS MOWERS — Mechanics special pair \$25. 555 3432	6 NEW CABLE REMOTES — For TKR box \$35/ea. 555 3950	MOVING — Computer hutch, \$35. Call John in Lawrenceville. 555-8083
SHEETMOSS — 1/2 box to line wire basket, \$13. 555 0234	AIR CONDITIONER CASEMENT WINDOW — \$100 firm. 555 5422	MOWER — Gas 21 Briggs runs good \$55. 3-6PM 555 7154
SHORTS — 25 pair girls, some new sz. 12, \$15. 555 0627	BED — 4 poster maple \$50, cushion patio set, \$70. 555 8876	POSTAGE STAMP COLLECTION — Mostly U.S. \$50. 555-9505
SILVERPLATE PLATTER — \$20. 8mm movie camera. 555 7456	BEDROOM FURN. — 1940's, waterfall col, wardrobe clos, dresser/ngtstnd, nds. refin, \$65. 555-7503	REDWOOD — 48" round table 3 benches, \$50. 555 0233
SKATES — In line roller like new \$20/bo. 555 6009	BIKE — Ladies Schwinn 10spd., 24", \$75. exc. cond. 555 9571	REFRIG — Washer, dryer-stove \$90/bo good. 555 0076
SOFA BED — Sleeps [2] good \$25. After 6, 555 1159		

\$26 to 100	\$26 to 100	\$26 to 100
REFRIGERATOR — Good. cond. \$100. LIPTON MICROWAVE , \$50. 555-2640	SKIER ROWER — Good cond. \$80. Call 555-9581	TABLE & 4 CHAIRS — Glass & oak top, \$65. 555-9389
REFRIGERATOR — Large sideXside \$95. 555 3592	SMITH CORONA — Electronic typewriter, new \$75. 555 7384	TATUNG MONITOR — \$40. Call 555-5383
REMOTE PLANE — & all to fly \$100/bo Dennis. 555 1321	SOFA — \$100, Chair\$50, kitchen table \$10. 555-2152	TENT — 2 person yellow/teal canvas, no flr, but incl. 2 infl. matr, \$30. 555 7503
SEGA GENESIS GAMES — \$30 ea. Like new. Call Steve at 555-6153 afternoons &eves	SOFA — Chair ottoman, blue flowered, \$100. 555-3220	TYPEWRITER — Electric, \$40. Smith Corona 555 8428
	SOFABED — Like new, beige, blues, browns \$89. 555 6806	YAMAHA 500 DIRTBIKE — Not Running, \$100. Call 555-9332
	STEREO — HI FI Cabinet type, 8-track AM/FM, \$40. 555-4987	

1. The Bargain Basement ads are divided into sections identified by the headings "\$25 and under" and "\$26 to \$100." Suggest another way that this information could be organized and what the advantages would be.

WO000925

2. Which three types of information are usually found in these classified ads?

- Ⓐ Original cost, age of item, size of item
- Ⓑ Item description, home address, phone number
- Ⓒ Phone number, item description, cost of the item
- Ⓓ Item condition, seller's name, time of day to call

WO000926

GO ON TO THE NEXT PAGE

3. It is possible to place a free ad in the Bargain Basement section. If you want to place a free ad, your items must be

- Ⓐ sold within five days
- Ⓑ priced at \$25 or less
- Ⓒ in good condition
- Ⓓ inspected by the editor

WO000927

4. Suppose you want to buy a bicycle. Look at the ads for bicycles listed in the Bargain Basement section. Tell which advertised bicycle interests you the most. Explain how you used the information in the ads to make your selection.

WO001004

5. Abbreviations in the ads are useful because they

- Ⓐ communicate information while saving space
- Ⓑ allow for different interpretations
- Ⓒ make each section more interesting
- Ⓓ make the items within a section appear to be similar

WO000931

6. What is an acceptable way to place a \$1 Bargain Basement ad in this newspaper?

- Ⓐ Phone in the ad, pay by credit card.
- Ⓑ Phone in the ad, pay by money order.
- Ⓒ Mail the ad, pay by cash.
- Ⓓ Mail the ad, pay by check.

WO000932

GO ON TO THE NEXT PAGE

7. Think of one item under \$25 to advertise in a Bargain Basement classified ad. Write the ad directly on the form below for John or Jane Jones from 1210 Locust Street, Midtown, NY 00001. Their phone number is (212) 555-3456.

WO000933

[illegible]

8. Suggest a way to improve the ordering form for Bargain Basement classified ads.

WO000930

9. What are three possible mistakes in writing an ad that could prevent it from being published?

WO000934



THE MATHEMATICS ASSESSMENT

The NAEP mathematics assessment measures students' ability to solve problems in five mathematics content strands: Number Properties and Operations; Measurement; Geometry; Data Analysis and Probability; and Algebra. Within each of these five content strands, students are asked questions that involve low, moderate, and high mathematical complexity.

The NAEP mathematics assessment includes multiple-choice questions, short-answer constructed-response questions, and extended constructed-response questions. The extended exercises allow students to communicate their ideas and demonstrate the reasoning they used to solve problems. The short-answer and extended-response questions make up approximately 50 percent of student assessment time. The assessment also incorporates the use of calculators (at all grades), rulers (at all grades), protractors (at grades 8 and 12), and ancillary materials such as spinners and geometric shapes in some parts of the assessment, but not all.

Calculator use is permitted on approximately one-third of the test questions (four-function calculators at Grade 4, scientific calculators at grade 8, and scientific or graphing calculators at grade 12). At grades 4 and 8, NAEP provides calculators for all students. At grade 12, students may use their own scientific or graphing calculators.

Distribution of Percentage of Assessment Questions Across Content Strands in the NAEP Mathematics Framework

Number Properties and Operations	10%
Measurement	30%
Geometry	
Data Analysis and Probability	25%
Algebra	35%

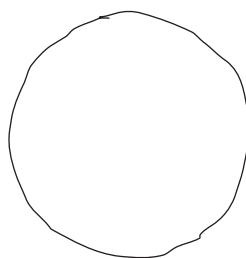
MATHEMATICS BOOKLET DIRECTIONS

This assessment uses many different booklets. Each booklet has different questions. Do not worry if the person next to you is working on questions that do not look like those you are working on.

Read each question carefully and answer it as well as you can. Do not spend too much time on any one question.

For some of the questions you may need to write or draw the answer. You can see how this is done in the example below.

Draw a circle in the space below.



You may be given a calculator to use for at least one part of your booklet. If you are given a calculator, you will have to decide when to use it in each section where its use is permitted. For some questions using the calculator is helpful, but for other questions the calculator may not be helpful. After each question you will be asked to indicate whether you used the calculator.

When you receive the calculator, make sure you know how to use it. There are instructions on the back cover of this booklet to help you. If the calculator does not work or if you do not know how to use it, raise your hand and ask for help.

REMEMBER:

Read each question CAREFULLY.

Fill in only ONE OVAL for each question or write your answer in the space provided.

If you change your answer, ERASE your first answer COMPLETELY.

CHECK OVER your work if you finish a section early.

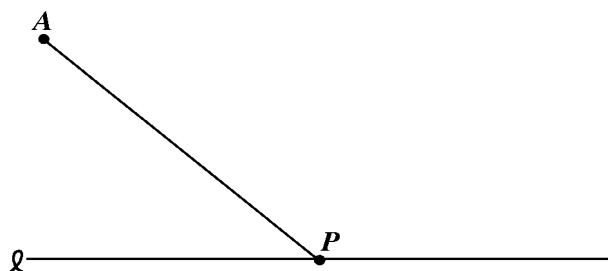
Do not go past the  sign at the end of each section until you are told to do so.



SAMPLE MATHEMATICS QUESTIONS

GRADE 12

1. In the figure below, use the protractor to draw a line m through point P perpendicular to segment AP . In the answer space provided, give the measure of the smaller angle formed by lines ℓ and m .



Answer:

2. A certain machine produces 300 nails per minute. At this rate, how long will it take the machine to produce enough nails to fill 5 boxes of nails if each box will contain 250 nails?

- Ⓐ 4 min
- Ⓑ 4 min 6 sec
- Ⓒ 4 min 10 sec
- Ⓓ 4 min 50 sec
- Ⓔ 5 min

3. The table below shows the daily attendance at two movie theaters for 5 days and the mean (average) and the median attendance.

	<u>Theater A</u>	<u>Theater B</u>
Day 1	100	72
Day 2	87	97
Day 3	90	70
Day 4	10	71
Day 5	91	100
Mean (average)	75.6	82
Median	90	72

- (a) Which statistic, the mean or the median, would you use to describe the typical daily attendance for the 5 days at Theater A? Justify your answer.

- (b) Which statistic, the mean or the median, would you use to describe the typical daily attendance for the 5 days at Theater B? Justify your answer.



THE SCIENCE ASSESSMENT

The NAEP science assessment is organized according to a content-by-process matrix. The content area consists of three fields of science: earth science, life science, and physical science. The three process categories (knowing and doing) are conceptual understanding, scientific investigation, and practical reasoning. In addition, there are two overarching domains that describe science, nature of science, and themes.

The 2005 NAEP assessment in science contains multiple-choice questions, as well as short and extended constructed-response exercises. At least 50% of the assessment time is devoted to constructed-response exercises. These questions measure students' knowledge of facts, ability to integrate this knowledge into larger constructs, and the capacity to use the tools, procedures, and reasoning processes of science to develop an increased understanding of the natural world.

Distribution of Percentage of Assessment Time Across Fields of Science in the NAEP Science Framework

Earth Science includes solid Earth, water, air, and Earth in space	Physical Science includes matter, energy, and motion	Life Science includes change and evolution, cells, organisms, and ecology
33%	33%	33%

SCIENCE BOOKLET DIRECTIONS

In each of sections 1 and 2, you will have 25 minutes to answer a series of questions about science.

You will be asked to respond to several different types of questions. Some of the questions will require you to choose the best answer and fill in the oval for that answer in your booklet. On questions like this, be sure to mark your answers clearly and darken the oval completely. If you make a mistake or want to change your answer, be sure to erase any unwanted marks. Here is an example of a question that requires you to fill in an oval.

Example 1

How hot is it on the surface of the Sun?

- ☐ Ⓐ Not quite as hot as boiling water
- ☐ Ⓑ About as hot as fire
- ☐ Ⓒ About 100°F
- ☒ Ⓓ Much hotter than almost anything on Earth

For some questions, you will be asked to write short answers on the blank lines provided in your booklet. Here is an example of a question that requires you to provide a short answer.

Example 2

Describe one important difference between plants and animals.

Most plants make their own food, while animals eat plants and other animals for food.

Also, you will be asked to answer some questions by writing longer, more detailed responses. For example, here is a question that requires you to provide a longer answer.

Example 3

Describe three things that animals do to survive in areas that have cold winters.

Some animals store a lot of fat so that they can go into a deep sleep all winter. Some animals grow a thick coat of fur to keep them warm. Some birds and butterflies fly away from a cold area and spend the winter in a place that is warm and has a lot of food.

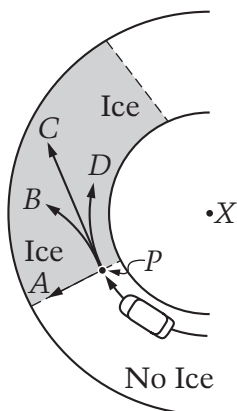
When you are asked to write your response be sure that your handwriting is clear. Think carefully about each question and make your answers as complete as possible, using as many lines as you need. If you finish a section before time is called, you may go back and check your work on that section only.

Finally, in some questions you may be asked to draw a diagram or fill in a table.



SAMPLE SCIENCE QUESTIONS

GRADE 12



HE001646

1. A car initially travels with constant speed around a tight, unbanked curve in a circular arc with center X , as shown in the diagram above. At position P , the car encounters a patch of ice, which reduces the frictional force on the tires to zero.

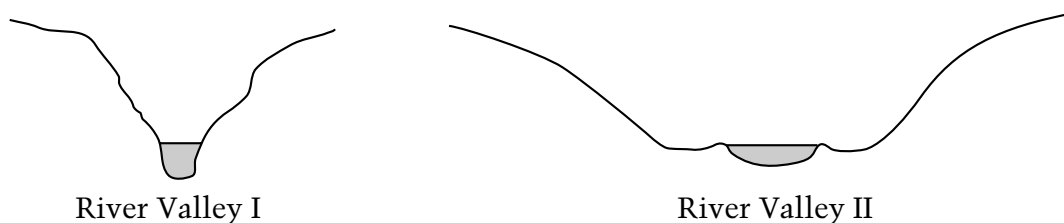
Which of the following best shows the path that the car takes while it is on the ice?

- Ⓐ A
Ⓑ B
Ⓒ C
Ⓓ D

JL001149

2. When very small particles in a dish of water are examined with a powerful microscope, the particles often appear to move in a rapid, random motion. Explain what causes this movement of the particles.

GO ON TO THE NEXT PAGE



JL001119

3. The diagram above shows a cross section of two river valleys. In each diagram, the river is represented by the shaded region. Which river valley is in its more mature stage of development? What two features in the diagram make you think so?

HE001623

4. During the time in the Earth's history when the first amphibians appeared, which of the following was one of the major groups of plants that dominated the land habitats?
- Ⓐ Cone-bearing trees (gymnosperms)
 - Ⓑ Flowering plants (angiosperms)
 - Ⓒ Ferns
 - Ⓓ Algae



STUDENT BACKGROUND QUESTIONNAIRE

GENERAL DIRECTIONS FOR GRADE 12

In the next two sections, you will be asked questions about yourself and your education. The choices for some questions will be written across the page as shown. Fill in the oval for the best answer.

Example 1

	Never or hardly ever	Once or twice a month	Once or twice a week	Almost every day
1. How often do you watch movies on TV?	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D

You should have filled in the oval below the answer that best tells how often you watch movies on TV.

The choices for some questions will be written down the page as shown. Now read Example 2 and indicate your answer.

Example 2

2. Which event would you prefer to attend?
<input type="radio"/> A basketball game
<input type="radio"/> B car show
<input type="radio"/> C concert
<input type="radio"/> D play

Make your answer mark clear and dark in the oval. If you make a mistake or want to change your answer, be sure to completely erase any unwanted marks.

Do not go past the  sign at the end of each section until you are told to do so.

If you finish before time is called, go back and check your work on that section only. Use your time carefully. Do as much as you can in each section.



STUDENT BACKGROUND QUESTIONNAIRE

In this section, please tell us about yourself and your family. The section has 14 questions. Mark your answers in your booklet.

- VB331330
1. Are you Hispanic or Latino? Fill in **one** or **more ovals**.

- Ⓐ No, I am not Hispanic or Latino.
- Ⓑ Yes, I am Mexican, Mexican American, or Chicano.
- Ⓒ Yes, I am Puerto Rican or Puerto Rican American.
- Ⓓ Yes, I am Cuban or Cuban American.
- Ⓔ Yes, I am from some other Hispanic or Latino background.

- VB331331
2. Which of the following best describes you? Fill in **one or more ovals**.

- Ⓐ White
- Ⓑ Black or African American
- Ⓒ Asian
- Ⓓ American Indian or Alaska Native
- Ⓔ Native Hawaiian or other Pacific Islander

GO ON TO THE NEXT PAGE 

For the rest of the questions in this section, fill in only **one** oval for each question.

3. Does your family get a newspaper at least four times a week?

VB331333

☐ (A) Yes
☐ (B) No
☐ (C) I don't know.

4. Does your family get any magazines regularly?

VB331334

☐ (A) Yes
☐ (B) No
☐ (C) I don't know.

5. About how many books are there in your home?

VB331335

☐ (A) Few (0–10)
☐ (B) Enough to fill one shelf (11–25)
☐ (C) Enough to fill one bookcase (26–100)
☐ (D) Enough to fill several bookcases (more than 100)

6. Is there a computer at home that you use?

VB331336

☐ (A) Yes
☐ (B) No

7. Is there an encyclopedia in your home? It could be a set of books, or it could be on the computer.

VB331337

☐ (A) Yes
☐ (B) No
☐ (C) I don't know.

8. About how many pages a day do you have to read in school and for homework?

TB001101

☐ (A) 5 or fewer
☐ (B) 6–10
☐ (C) 11–15
☐ (D) 16–20
☐ (E) More than 20

9. How often do you talk about things you have studied in school with someone in your family?

VB331339

☐ (A) Never or hardly ever
☐ (B) Once every few weeks
☐ (C) About once a week
☐ (D) Two or three times a week
☐ (E) Every day

VB331447

10. How many days were you absent from school in the last month?

- Ⓐ None
- Ⓑ 1 or 2 days
- Ⓒ 3 or 4 days
- Ⓓ 5 to 10 days
- Ⓔ More than 10 days

VB330870

11. How far in school did your mother go?

- Ⓐ She did not finish high school.
- Ⓑ She graduated from high school.
- Ⓒ She had some education after high school.
- Ⓓ She graduated from college.
- Ⓔ I don't know.

VB330871

12. How far in school did your father go?

- Ⓐ He did not finish high school.
- Ⓑ He graduated from high school.
- Ⓒ He had some education after high school.
- Ⓓ He graduated from college.
- Ⓔ I don't know.

VB331451

13. How often do people in your home talk to each other in a language other than English?

- Ⓐ Never
- Ⓑ Once in a while
- Ⓒ About half of the time
- Ⓓ All or most of the time

HE002549

14. Which of the following best describes your high school program?

- Ⓐ General
- Ⓑ Academic or college preparatory
- Ⓒ Vocational or technical



STUDENT BACKGROUND QUESTIONNAIRE

READING—GRADE 12

This section has 15 questions. Mark your answers in your booklet. Fill in only **one** oval for each question.

VB345622

1. Please indicate how much you DISAGREE or AGREE with the following statements about reading and writing. Fill in **one** oval on each line.

	Strongly disagree	Disagree	Agree	Strongly agree	
a. When I read books, I learn a lot.	(A)	(B)	(C)	(D)	VB345623
b. Reading is one of my favorite activities.	(A)	(B)	(C)	(D)	VB345624

VB379288

2. How often do you do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Almost every day	
a. Read for fun on your own time	(A)	(B)	(C)	(D)	VB379289
b. Talk with your friends or family about something you have read	(A)	(B)	(C)	(D)	VB379290

GO ON TO THE NEXT PAGE

VB345628

3. NOT including reading that you do for school, how often do you spend time reading each of the following types of **fiction**? Fill in **one** oval on each line.

	Never or hardly ever	A few times a year	Once or twice a month	At least once a week	
a. Comic books or joke books	(A)	(B)	(C)	(D)	VB345629
b. Fiction books or stories (books or stories about imagined events)	(A)	(B)	(C)	(D)	VB345630
c. Plays	(A)	(B)	(C)	(D)	VB345631
d. Poems	(A)	(B)	(C)	(D)	VB345632

VB345657

4. NOT including reading that you do for school, how often do you spend time reading each of the following types of **non-fiction**? Fill in **one** oval on each line.

	Never or hardly ever	A few times a year	Once or twice a month	At least once a week	
a. Biographies or autobiographies	(A)	(B)	(C)	(D)	VB345658
b. Books about science (for example, nature, animals, astronomy)	(A)	(B)	(C)	(D)	VB345659
c. Books about technology (for example, machines, computers)	(A)	(B)	(C)	(D)	VB345660
d. Books about other countries	(A)	(B)	(C)	(D)	VB345661
e. Books about history	(A)	(B)	(C)	(D)	VB345662
f. Other non-fiction books	(A)	(B)	(C)	(D)	VB345664

VB345640

5. NOT including reading that you do for school, how often do you spend time reading each of the following types of **articles or stories**? Fill in **one** oval on each line.

	Never or hardly ever	A few times a year	Once or twice a month	At least once a week	
a. Articles or stories in a newspaper	(A)	(B)	(C)	(D)	VB345641
b. Articles or stories in a magazine	(A)	(B)	(C)	(D)	VB345642
c. Articles or stories on the Internet	(A)	(B)	(C)	(D)	VB345643

VB345644

6. Now think about reading and writing you do for school. For your **English** class this year, how often do you do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	A few times a year	Once or twice a month	At least once a week	
a. Have a class discussion about something that the whole class has read	(A)	(B)	(C)	(D)	VB345645
b. Work in pairs or small groups to talk about something that you have read	(A)	(B)	(C)	(D)	VB345646
c. Write in a journal about something that you have read for English class	(A)	(B)	(C)	(D)	VB345647

VB345648

7. For your **English** class so far this year, how many times have you done each of the following? Fill in **one** oval on each line.

	Never	Once	2 or 3 times	4 or 5 times	6 or more times	
a. Written a report or paper about something that you have read (for example, a book report)	(A)	(B)	(C)	(D)	(E)	VB345649
b. Made a presentation to the class about something that you have read	(A)	(B)	(C)	(D)	(E)	VB345650
c. Done a project about something that you have read (for example, written a play, created a web site)	(A)	(B)	(C)	(D)	(E)	VB345651

VB345652

8. Think about the classes that you are taking this year. How often do you read something that is **NOT** a textbook for each of the following classes? Fill in **one** oval on each line.

	Never or hardly ever	A few times a year	Once or twice a month	At least once a week	I don't take this class	
a. English class (for example, plays, fiction books)	(A)	(B)	(C)	(D)	(E)	VB345653
b. Science class (for example, science magazines, biographies of scientists)	(A)	(B)	(C)	(D)	(E)	VB345654
c. Social studies or history class (for example, books about people who lived a long time ago, real letters written a long time ago)	(A)	(B)	(C)	(D)	(E)	VB345655
d. Math class (for example, math word-games)	(A)	(B)	(C)	(D)	(E)	VB345656

GO ON TO THE NEXT PAGE

VB345715

9. For school this year, how often have you been asked to write long answers to questions on tests or assignments that involved reading?

- ☐ Ⓐ Never
- ☐ Ⓑ Once or twice this year
- ☐ Ⓒ Once or twice a month
- ☐ Ⓓ At least once a week

VB429520

10. When you have reading assignments in school, how often does your teacher do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Almost every day	
a. Ask you to explain or support your understanding of what you have read	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VB429521
b. Ask you to discuss different interpretations of what you have read	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VB429582

VB595182

11. How hard was this test compared to most other tests you have taken this year in school?

- ☐ Ⓐ Easier than other tests
- ☐ Ⓑ About as hard as other tests
- ☐ Ⓒ Harder than other tests
- ☐ Ⓓ Much harder than other tests

GO ON TO THE NEXT PAGE

VC034559

12. How hard did you try on this test compared to how hard you tried on most other tests you have taken this year in school?

- Ⓐ Not as hard as on other tests
- Ⓑ About as hard as on other tests
- Ⓒ Harder than on other tests
- Ⓓ Much harder than on other tests

VB595184

13. How important was it to you to do well on this test?

- Ⓐ Not very important
- Ⓑ Somewhat important
- Ⓒ Important
- Ⓓ Very important

QK 070697

14. How much education do you think you will complete?

- Ⓐ I will not finish high school.
- Ⓑ I will graduate from high school.
- Ⓒ I will have some education after high school.
- Ⓓ I will graduate from college.
- Ⓔ I will go to graduate school.
- Ⓕ I don't know.

TB005501

15. What do you expect that your main activity will be in the year after you leave high school?

- Ⓐ Working full time
- Ⓑ Attending a vocational, technical, or business school
- Ⓒ Attending a two-year college
- Ⓓ Attending a four-year college, service academy, or university
- Ⓔ Serving in the regular military service
- Ⓕ Other



STUDENT BACKGROUND QUESTIONNAIRE

MATHEMATICS—GRADE 12

This section has 16 questions. Mark your answer in your booklet. Unless directed otherwise, fill in only **one** oval for each question.

1. Which courses have you taken from eighth grade to the present? **Fill in one or more ovals on each line.** INCLUDE courses taken in summer school, but DO NOT INCLUDE topics that were only taught as part of a longer course (such as trigonometry taught in drafting class or computer programming taught in Algebra II). VB543279
- | | I have never taken this course | I took this course in or before Grade 8 | I took this course in Grade 9 | I took this course in Grade 10 | I took this course in Grade 11 | I took this course in Grade 12 | |
|---|--------------------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------------------|----------|
| a. Basic or general mathematics course | (A) | (B) | (C) | (D) | (E) | (F) | VB543280 |
| b. Tech-prep mathematics, business mathematics, consumer mathematics, or other applied mathematics course | (A) | (B) | (C) | (D) | (E) | (F) | VB543281 |
| c. Introduction to algebra or pre-algebra course | (A) | (B) | (C) | (D) | (E) | (F) | VB543282 |
| d. Algebra I course | (A) | (B) | (C) | (D) | (E) | (F) | VB543283 |
| e. Geometry course | (A) | (B) | (C) | (D) | (E) | (F) | VB543285 |
| f. Algebra II course, with or without trigonometry | (A) | (B) | (C) | (D) | (E) | (F) | VB543286 |
| g. Trigonometry (as a separate course) | (A) | (B) | (C) | (D) | (E) | (F) | VB543287 |
| h. Pre-calculus course, (also called third-year algebra or elementary functions and analysis) | (A) | (B) | (C) | (D) | (E) | (F) | VB543288 |
| i. Unified, integrated, or sequential mathematics course | (A) | (B) | (C) | (D) | (E) | (F) | VB543289 |
| j. Probability or statistics course | (A) | (B) | (C) | (D) | (E) | (F) | VB543290 |
| k. Calculus course | (A) | (B) | (C) | (D) | (E) | (F) | VB543292 |
| l. Discrete or finite mathematics course | (A) | (B) | (C) | (D) | (E) | (F) | VB543291 |
| m. Other mathematics course | (A) | (B) | (C) | (D) | (E) | (F) | VB543293 |
| n. Computer programming course (such as C++, Pascal, Visual Basic, etc.) | (A) | (B) | (C) | (D) | (E) | (F) | VB543294 |

GO ON TO THE NEXT PAGE

VB543295

2. Are you currently enrolled in or have you taken an Advanced Placement (AP) course in mathematics? Fill in **one or more** ovals.

- ☐ (A) Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus AB
- ☐ (B) Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus BC
- ☐ (C) Yes, I am enrolled in or have taken Advanced Placement (AP) Statistics
- ☐ (D) No, I have never taken an Advanced Placement (AP) mathematics course

VB543297

3. Are you currently enrolled in or have you taken any **online** mathematics courses for **high school or college credit**?

- ☐ (A) Yes
- ☐ (B) No

VB543264

4. How often do you use a computer to play mathematics games that are **not for a mathematics class**?

- ☐ (A) Never or hardly ever
- ☐ (B) Once every few weeks
- ☐ (C) About once a week
- ☐ (D) Two or three times a week
- ☐ (E) Every day or almost every day

VB543267

5. What kind of calculator do you usually use when you are **not in mathematics class**?

- ☐ (A) None
- ☐ (B) Basic four-function (addition, subtraction, multiplication, division)
- ☐ (C) Scientific (not graphing)
- ☐ (D) Graphing

VB517284

6. Are you currently taking a mathematics course?

- ☐ (A) Yes → **Go to Question 7**
- ☐ (B) No → **Skip to Question 14.**

VB525162

7. How often do you use a computer for mathematics at school?

Ⓐ Never or hardly ever
 Ⓑ Once every few weeks
 Ⓒ About once a week
 Ⓓ Two or three times a week
 Ⓔ Every day or almost every day

VB543148

8. On a typical day, how much time do you spend doing work for mathematics class on a computer? Include work you do in class and for homework.

Ⓐ None
 Ⓑ Half an hour or less
 Ⓒ About 1 hour
 Ⓓ About 2 hours
 Ⓔ More than 2 hours

VB543155

9. When you are doing mathematics for school or homework, how often do you use these **different types of computer programs**? Fill in one oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day	
a. A spreadsheet program for mathematics class assignments	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543157
b. A program to practice or drill on math facts (addition, subtraction, multiplication, division)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543158
c. A program that presents new mathematics lessons with problems to solve	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543160
d. The Internet to learn things for mathematics class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543159
e. A calculator program on the computer to solve or check problems for mathematics class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543161
f. A graphing program on the computer to make charts or graphs for mathematics class	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB543262
g. A statistical program to calculate patterns such as correlations or cross-tabulations	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VB517157


 GO ON TO THE NEXT PAGE

VB543149

10. When you are **doing mathematics for school or homework**, how often do you **use a computer** for the following? Fill in one oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day	
a. Chat online with friends about mathematics class work or homework (for example, e-mail, chat rooms, or instant messaging)	<input type="radio"/> (A)	<input type="radio"/> (B)	<input type="radio"/> (C)	<input type="radio"/> (D)	<input type="radio"/> (E)	VB543152
b. Find out about mathematics class work or homework from your teacher using e-mail, instant messaging, web, etc.	<input type="radio"/> (A)	<input type="radio"/> (B)	<input type="radio"/> (C)	<input type="radio"/> (D)	<input type="radio"/> (E)	VB543153
c. Use a computer to get help with mathematics from an outside source (for example, online tutoring)	<input type="radio"/> (A)	<input type="radio"/> (B)	<input type="radio"/> (C)	<input type="radio"/> (D)	<input type="radio"/> (E)	VB543154

VB517159

11. How often do you use these different types of calculators in your mathematics class?

	Never use	Sometimes but not often	Usually use	
a. Basic four-function (addition, subtraction, multiplication, division)	<input type="radio"/> (A)	<input type="radio"/> (B)	<input type="radio"/> (C)	VB517160
b. Scientific (not graphing)	<input type="radio"/> (A)	<input type="radio"/> (B)	<input type="radio"/> (C)	VB517162
c. Graphing	<input type="radio"/> (A)	<input type="radio"/> (B)	<input type="radio"/> (C)	VB517282

GO ON TO THE NEXT PAGE

VB543269

12. For each of the following activities, how often do you use a **calculator**? Fill in **one** oval on each line.

	Never or hardly ever	Once every few weeks	About once a week	Two or three times a week	Every day or almost every day	
a. To check your work on mathematics homework assignments	<input type="radio"/> (A)	<input type="radio"/> (B)	<input type="radio"/> (C)	<input type="radio"/> (D)	<input type="radio"/> (E)	VB543270
b. To calculate the answers to mathematics homework problems	<input type="radio"/> (A)	<input type="radio"/> (B)	<input type="radio"/> (C)	<input type="radio"/> (D)	<input type="radio"/> (E)	VB543271
c. To work in class on mathematics lessons led by your teacher	<input type="radio"/> (A)	<input type="radio"/> (B)	<input type="radio"/> (C)	<input type="radio"/> (D)	<input type="radio"/> (E)	VB543272

VB517158

13. When you take a mathematics test or quiz, how often do you use a calculator?

- ☐ (A) Never
☐ (B) Sometimes
☐ (C) Always

VB595182

14. How hard was this test compared to most other tests you have taken this year in school?

- ☐ (A) Easier than other tests
☐ (B) About as hard as other tests
☐ (C) Harder than other tests
☐ (D) Much harder than other tests

VC034595

15. How hard did you try on this test, compared to how hard you tried on most other tests you have taken this year in school?

- ☐ (A) Not as hard as on other tests
☐ (B) About as hard as on other tests
☐ (C) Harder than on other tests
☐ (D) Much harder than on other tests

VB595184

16. How important was it to you to do well on this test?

- ☐ (A) Not very important
☐ (B) Somewhat important
☐ (C) Important
☐ (D) Very important



STUDENT BACKGROUND QUESTIONNAIRE

SCIENCE—GRADE 12

This section has 14 questions. Mark your answers in your booklet. Fill in only **one** oval for each question. Unless directed otherwise, fill in only **one** oval for each question.

HE002996

1. How much do you agree with the following statements? Fill in **one** oval on each line.

	Disagree	Not sure	Agree	
a. I like science.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	HE002997
b. I am good at science.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	HE002998
c. Science is useful for solving everyday problems.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	HE003000
d. Science is boring.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	HE003003

LC000172

2. Are you taking a science course this year?

- ☐ A Yes
- ☐ B No

GO ON TO THE NEXT PAGE 

ID110225

3. Which courses have you taken from the eighth grade to the present? You should fill in more than one oval in each row if you have taken a course of that description more than once. If you have never taken a particular course, fill in the oval in the column “Course not taken.” Fill in at least one oval in each row.

	Course not taken	I took this course in Grade 8	I took this course in Grade 9	I took this course in Grade 10	I took this course in Grade 11	I took this course in Grade 12	
a. Earth (and space) science	(A)	(B)	(C)	(D)	(E)	(F)	ID110226
b. Life science (other than biology)	(A)	(B)	(C)	(D)	(E)	(F)	ID110227
c. Physical science (other than chemistry or physics)	(A)	(B)	(C)	(D)	(E)	(F)	ID110228
d. General science	(A)	(B)	(C)	(D)	(E)	(F)	ID110229
e. Integrated science	(A)	(B)	(C)	(D)	(E)	(F)	ID110230
f. First-year biology	(A)	(B)	(C)	(D)	(E)	(F)	ID110231
g. Second-year biology	(A)	(B)	(C)	(D)	(E)	(F)	ID110232
h. First-year chemistry	(A)	(B)	(C)	(D)	(E)	(F)	ID110233
i. Second-year chemistry	(A)	(B)	(C)	(D)	(E)	(F)	ID110234
j. First-year physics	(A)	(B)	(C)	(D)	(E)	(F)	ID110235
k. Second-year physics	(A)	(B)	(C)	(D)	(E)	(F)	ID110236
l. Science and technology	(A)	(B)	(C)	(D)	(E)	(F)	ID110237
m. Other science course	(A)	(B)	(C)	(D)	(E)	(F)	ID110238


 GO ON TO THE NEXT PAGE

ID110275

4. Are you currently enrolled in or have you taken an Advanced Placement course in science? Fill in ovals for **all** that apply.
- Ⓐ Yes, I am enrolled in or have taken Advanced Placement Biology.
 - Ⓑ Yes, I am enrolled in or have taken Advanced Placement Environmental Science.
 - Ⓒ Yes, I am enrolled in or have taken Advanced Placement Chemistry.
 - Ⓓ Yes, I am enrolled in or have taken Advanced Placement Physics B or C.
 - Ⓔ Yes, I am enrolled in or have taken Advanced Placement Computer Science A or AB.
 - Ⓕ No, I have never taken an Advanced Placement science course.

ID110276

5. Are you currently enrolled in or have you taken International Baccalaureate courses in science?
- Ⓐ Yes
 - Ⓑ No

GO ON TO THE NEXT PAGE

HE003014

6. When you study science in school, how often do you do each of the following? Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Almost every day	
a. Read a science textbook	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	HE003015
b. Read a book or a magazine about science	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	HE003016
c. Discuss science in the news	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	HE003017
d. Work with other students on a science activity or project	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	WO001033
e. Give an oral science report	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	WO001034
f. Prepare a written science report	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	WO001035
g. Do hands-on activities or investigations in science	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	LD001451
h. Talk about the measurements and results from your hands-on activities or investigations	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	LD001477
i. Use a computer for science	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	WO001038
j. Take a science test or quiz	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	WO001039
k. Use library resources for science	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	WO001040

GO ON TO THE NEXT PAGE

WO001042

7. When you study science in school, how often does your teacher do each of the following?
Fill in **one** oval on each line.

	Never or hardly ever	Once or twice a month	Once or twice a week	Almost every day	
a. Do a science demonstration	(A)	(B)	(C)	(D)	WO001044
b. Use computers for science (e.g., science software, telecommunications)	(A)	(B)	(C)	(D)	WO001046

LC000147

8. Do you ever do science projects in school that take a week or more?

(A) Yes
(B) No

VB595182

10. How hard was this test compared to most other tests you have taken this year in school?

(A) Easier than other tests
(B) About as hard as other tests
(C) Harder than other tests
(D) Much harder than other tests

QK070712

9. This year in school, how often have you been asked to write long answers to questions on tests or assignments for science?

(A) Never
(B) Once or twice this year
(C) Once or twice a month
(D) At least once a week

VC034559

11. How hard did you try on this test compared to how hard you tried on most other tests you have taken this year in school?

(A) Not as hard as on other tests
(B) About as hard as on other tests
(C) Harder than on other tests
(D) Much harder than on other tests

VB595184

12. How important was it to you to do well on this test?

- Ⓐ Not very important
- Ⓑ Somewhat important
- Ⓒ Important
- Ⓓ Very important

QK070697

13. How much education do you think you will complete?

- Ⓐ I will not finish high school.
- Ⓑ I will graduate from high school.
- Ⓒ I will have some education after high school.
- Ⓓ I will graduate from college.
- Ⓔ I will go to graduate school.
- Ⓕ I don't know.

TB005501

14. What do you expect that your main activity will be in the year after you leave high school?

- Ⓐ Working full time
- Ⓑ Attending a vocational, technical, or business school
- Ⓒ Attending a two-year college
- Ⓓ Attending a four-year college, service academy, or university
- Ⓔ Serving in the regular military service
- Ⓕ Other



NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS 2005 READING, MATHEMATICS, AND SCIENCE

INFORMATION ABOUT NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

PROJECT MISSION. NAEP is administered by the U.S. Department of Education to report on the achievement of American students in key academic subjects. For more information about the NAEP program, visit the NAEP web site at <http://nces.ed.gov/nationsreportcard> or call 202-502-7420.

PARTICIPATION. States and districts that receive Title I funds are required to participate in biennial NAEP reading and mathematics assessments at grades 4 and 8. Teacher and student participation is always voluntary. Contact your school's NAEP coordinator for more information.

NAEP CONTENT. The National Assessment Governing Board (NAGB) develops frameworks detailing what students reasonably might be expected to know and do for each subject assessed by NAEP. For additional information on framework development, see the NAGB web site at <http://nagb.org>.

SAMPLE NAEP QUESTIONS. For each assessment, some of the test questions, along with performance data, are made available to the public to provide concrete samples of NAEP contents and results. For every assessment, NAEP distributes to participating schools demonstration booklets that provide more detailed information about the assessment design and questions. Released questions and student performance data may be viewed on and downloaded from the NCES web site at <http://nces.ed.gov/nationsreportcard/itmrls>.

SECURE NAEP QUESTIONS. On written request, adults may review NAEP questions and instruments still in use. These arrangements must be made in advance, and persons reviewing the assessment may not remove the booklets from the room, copy them, or take notes. Contact your school's NAEP coordinator for more information.

NAEP REPORTS. NAEP publications can be searched and downloaded from the NAEP web site at <http://nces.ed.gov/nationsreportcard>.

FOR FURTHER INFORMATION. For prompt field staff support on these or other matters, call the NAEP Help Desk at 800-283-6237.

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